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**REMEDIAL DESIGN/WORK PLAN
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, MIDDLESEX COUNTY, NEW JERSEY**

*Prepared for
The*

**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION II**

2890 Woodbridge Ave.
Edison, New Jersey

By

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I. INTRODUCTION

The Remedial Program of the United States Environmental Protection Agency (USEPA) has requested that the Removal Program of USEPA prepare a Scope of Work for an interim action that will armor the banks of the Bound Brook in the area of the three culverts and along the wetlands that border the historical CDE disposal area. The objective is to eliminate direct contact with PCB-contaminated debris and prevent its migration from the banks along the perimeter of the former CDE facility property.

In addition, a Task Order (No. 0064) was issued by USEPA Region II's Removal Action Branch to Earth Tech Inc. Under the Emergency and Rapid Response Services (ERRS). The Task Order Statement of Work requires Earth Tech to prepare a Health and Safety Plan (HASp),

Prior to performing the work as outlined in the Task Order Statement of Work the Earth Tech Response Manager (RM) was requested to prepare a Work Plan / Scope of Work for activities to be conducted the clearing and covering of the specified area.

The following constitutes the Work Plan and Remedial Design for activities to be conducted under Task Order 0064.

II. FACILITY DESCRIPTION / EXISTING SITE CONDITIONS

The former CDE facility is located at 333 Hamilton Boulevard in South Plainfield, Middlesex County, New Jersey. It occupies approximately 26 acres in an area of mixed industrial, commercial and residential uses, and is bordered by commercial businesses and residences to the south, west, and northwest. Wetlands and an unnamed tributary to the Bound Brook border the former CDE facility to the southeast and east. Conrail railroad tracks pass alongside the eastern edge of the Site and crisscross the unnamed tributary just north of the former CDE facility. Other industries and commercial businesses are present to the northeast and east of the former CDE facility on the opposite side of the Conrail tracks.

The unnamed tributary flows into the Bound Brook approximately 0.75 miles downstream of the former CDE facility. The Bound Brook flows for 1.5 miles before emptying into New Market Pond. Surface water flow from New Market Pond travels approximately 8.5 miles before discharging into the Raritan River. The dam on the western edge of New Market Pond is reportedly impassible to most fish. Spring Lake is located upstream from the Site and is associated with Cedar Brook. Both of these water bodies support secondary contact recreation including boating and fishing. All of the above-mentioned water bodies are designated by the State of New Jersey for the maintenance, migration, and propagation of the natural and established biota. These water bodies are utilized as freshwater fisheries. A fish consumption advisory has been posted for the area between the former CDE facility and New Market Pond. Wetlands that border the former CDE facility to the southeast diminish significantly as the Bound

Brook heads downstream towards the northwest. The width of the stream in the vicinity of the former CDE facility varies from ten to 20 feet, with a varying depth during normal conditions, of one to four feet. Ground water is a significant source of drinking water within a four-mile radius of the Site. The majority of people within this radius are served by drinking water from either the Middlesex Water Company or the Elizabethtown Water Company, both of which utilize supply wells within four miles of the Site.

The Comprehensive Environmental Response, Compensation and Liability Information System ID Number for the Site is NJD981557879. The proposed removal action is considered time-critical.

From 1936 to 1962, Cornell-Dubilier Electronics, Inc. ("CDE") operated at an approximately 26-acre property located at 333 Hamilton Boulevard in South Plainfield, New Jersey, manufacturing capacitors. During CDE's period of operation, hazardous substances including PCBs and trichloroethylene ("TCE") were released and disposed of in and on facility soils. PCBs, TCE, and other hazardous substances, have been detected in the soils, buildings and groundwater at the former CDE facility, and PCBs have been found in the sediments of the Bound Brook and adjacent low lying wetland areas (the "Bound Brook Corridor"). The former CDE facility has more recently been known as the Hamilton Industrial Park.

The Site is being addressed in four operable units. To date, EPA has issued a Record of Decision ("ROD") for both Operable Unit 1 ("OU1"), which concerns contaminated residential, commercial and municipal properties located in the vicinity of the former CDE facility, and Operable Unit 2 ("OU2"), which addresses the contaminated soils and buildings at the former CDE facility. Operable Unit 3 ("OU3") will address contaminated site groundwater and associated soil vapor, and Operable Unit 4 ("OU4") will address contaminated sediments of the Bound Brook Corridor.

Occasional flooding events have caused erosion of a portion of the Bound Brook banks near the former CDE facility, and erosion of the banks in the southern end of the facility that borders the wetlands. This erosion has resulted in the release of capacitors, capacitor-associated debris and PCB-contaminated wood blocks to the Brook.

III. SITE OBJECTIVES

The objectives to be met during this phase of the clean up include the following:

- 1) Stabilize the banks to prevent the release of PCB-contaminated debris due to erosion:
 - Vegetation will be cleared from the banks of the Bound Brook in the area of the three culverts and on the southern bank of the facility property along the edge of the wetlands area. Approximately 15,000 to 20,000 ft² of area will be cleared of vegetation. All cleared vegetation will be chipped on-site and spread on the temporary roadways.

- Geotextile fabric will be installed over the soil in the cleared area to prevent erosion. The barrier will be installed on the banks of the Bound Brook in Reach 1, from near the railway siding and three culverts to approximately 140 feet downstream of the culverts in the tongue area and north bank and for approximately 1000 feet upstream of the culverts along the southern bank of the former CDE facility property that borders the wetlands area.

- Rip-rap will be installed over the geotextile fabric to armor the banks of the Bound Brook and to secure the geotextile fabric.

- A dust monitoring/control program will be initiated during all site activities.

2) Prepare a Health and Safety Plan (HASP) for the Site.

3) Repair selected damaged Fencing.

4) Perform other activities as directed by the OSC.

IV. TECHNICAL APPROACH

1.0 Pre-Mobilization Activities

In order to accomplish the objectives as stated, in the most efficient manner, it will first be necessary to procure select services prior to mobilization of the job site, and scheduling these services in an order that will achieve the Site objectives while minimizing costs and redundant mobilizations and demobilizations.

The following equipment will be obtained;

- office trailer
- crew trailer
- Porta-Johns
- Dumpster
- Telephone service
- Photo-copier
- Excavator
- Rubber Tire Loader with 3 cubic yard (yd³) bucket as requested by the client
- Geotextile fabric
- Rip Rap

It may be needed to have the work area mark out by the client so we stay within the work area.

2.0 Mobilization

Mobilization of Contractor and or Subcontractor personnel will be as directed by the OSC. No personnel will be mobilized without direction by the OSC. Mobilization may

need to be performed twice during the course of the clean-up. The first trip to the Site would be to perform a meeting with the OSC to go over the site scope of work.

3.0 Technical Approach

3.1 Grubbing- will commence using a 200 excavator with a thumb attachment. Utilizing this machine accomplish the majority of this activity with the laborers performing the spotting for the operator to ensure we stay within the working area. The excavator will remain outside of the stream.

3.2 Once the vegetation is staged we will bring in a wood chipper and spread the chipping over the hot zone.

3.3 The excavator goes in the hot zone it will not come out but if it does we will deacon the machine and collect the deacon water which will be disposing of at the end of the project.

3.4 All personal that go into the hot zone will have as a minimum of booties and tyvek as well as hard hat and safety glasses.

3.5 Once the area is cleared we will lay down the geo textile fabric it may be needed to stake the material down.

3.6 After the fabric is installed we will place the Rip-Rap this will be brought in using the loader and spread with the excavator, any time we use the excavator for spreading the stone we will deacon the excavator bucket.

3.7 To start with we will probably grub a large area but if weather or other unforeseen things happen we may grub in the morning and install the Rip-Rap in the afternoon so we are caught up every day, at the least I recommend to have all the area that was cleared Rip-Rap at the end of the week.

3.8 Once the entire Rip Rap is installed all the equipment will be decontaminated.

3.9 A staging area for the stone will be constructed by installing Quarry dust first then a 80 mil liner and finally installing quarry dust on top of the liner which will make the liner safe to track on.

3.10 Removal of any fill material will be limited and activities will be performed in a manner that limits disturbances to the stream/wetlands.

4.0 Safety

All personnel within the designated work area shall wear at a minimum, hard hats, safety glasses, and steel toed boots. Additional PPE selection will be based on adherence to the HASP. Personnel shall receive site specific instruction pertaining to the hazards associated with the demolition prior to each day's activity, and before each new activity is undertaken. These safety meetings will be documented.

5.0 Dust Control

Dust control measures will be implemented to control fugitive dust emissions during revetment installation activities. The water will be applied via a fire hose, utilizing the fire hydrant located in the center of the site.

The quantity of water applied will be adjusted as necessary to control the actual dust conditions while preventing overuse and possible offsite migration of the overage. Although, the generation of dust from these surficial clearing and grubbing activities is not anticipated.

6.0 Key Personnel

Joe Galioto
Moe Green
Eric Williams

Response Manager (RM)
Foreman
Operator

Site Safety Officer: Responsible for overall personnel safety and health, enforcement of safety protocol and procedures, inspection of all safety equipment and personal protective equipment. Note – this position may be held by the RM or T&D Coordinator for this Site due to size and anticipated project length.

V. RESOURCE REQUIREMENTS

1.0 Personnel

RM
T&D Coordinator

2.0 Materials

- Rip-Rap stone six inch – D50 for wetlands area and 10-16 inch-D50
- Geo textile fabric (Puncture strength of 240 lbs,) non-woven polypropylene, be resistant to ultraviolet degradation and to biological and chemical environments normally found in soils typically used under Rip-Rap for erosion control. In addition, the geotextile should meet the following specifications (ASTM methods);
 - grab tensile strength of ~380 lbs.,
 - puncture strength of ~240 lbs,
 - Apparent Opening Size 100 US Standard Sieve

***NOTES* -**

1). the amount of materials needed will vary but cost will be incurred only as used. Tracking of incoming supplies and weekly inventories will be performed to determine materials expended on site.

2). other materials needed to conduct cleanup operations, and related support tasks, will be identified during the course of the cleanup. As the need for these items arises the OSC will be informed and concurrence in the form of daily work orders or daily work order amendments will be obtained prior to the procurement and/or use of these materials.

3). before any items are procured and invoiced section B.4.E of the Contract will be checked to insure the items are not on the list of non-billable items.

3.0 Site Support Services

Standard billable site support services include:

- porta-johns
- trash removal

Two porta-johns will be mobed initially, although the number of personnel may necessitate a second unit, especially if one unit needs to be reserved strictly for the use of women. Servicing of the porta-john(s) will be requested for once a week service. If conditions dictate, the service can be increased to twice a week if necessary.

Trash removal will be for office generated trash and will consist of one 10 cubic yard dumpster. It may be possible to bag all trash for disposal with the building demolition debris in which case the small dumpster will not be mobilized.

VI. SCHEDULE

It is estimated that work on Site to start October 14, 2008 and last five to six weeks this all depends on weather as well, as the hours work each week as it is recommended to work as much as possible if the weather is good.